

AUTOMATION BY INNOVATIVATION

Joint Technology Development

TODD SHAPIRO
VICE PRESIDENT, MONROE, NC

Family



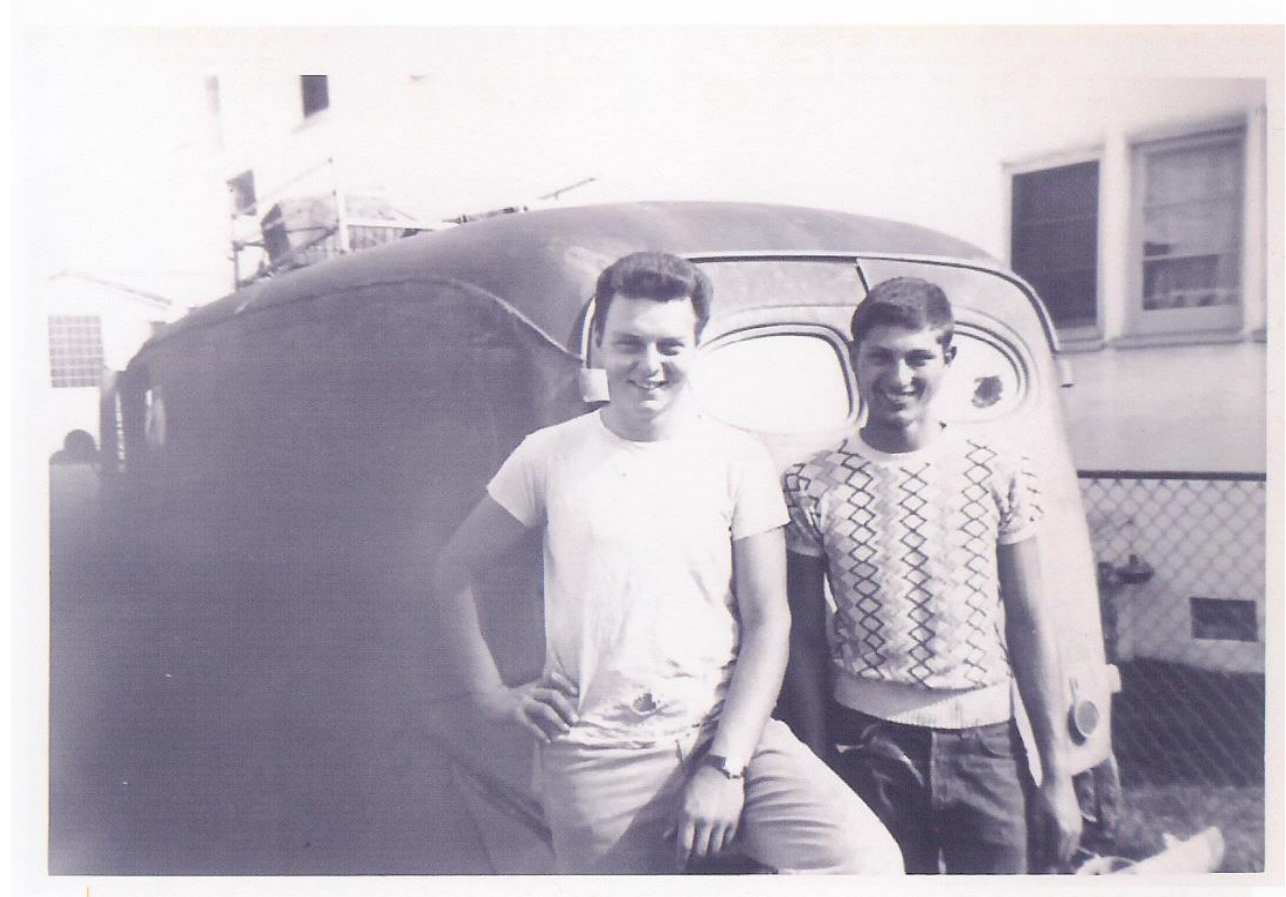
Early Influence

Scene's from "Land of the Giants"



Early Influence

- Robert Shapiro (Left)
- My Dad at age 18



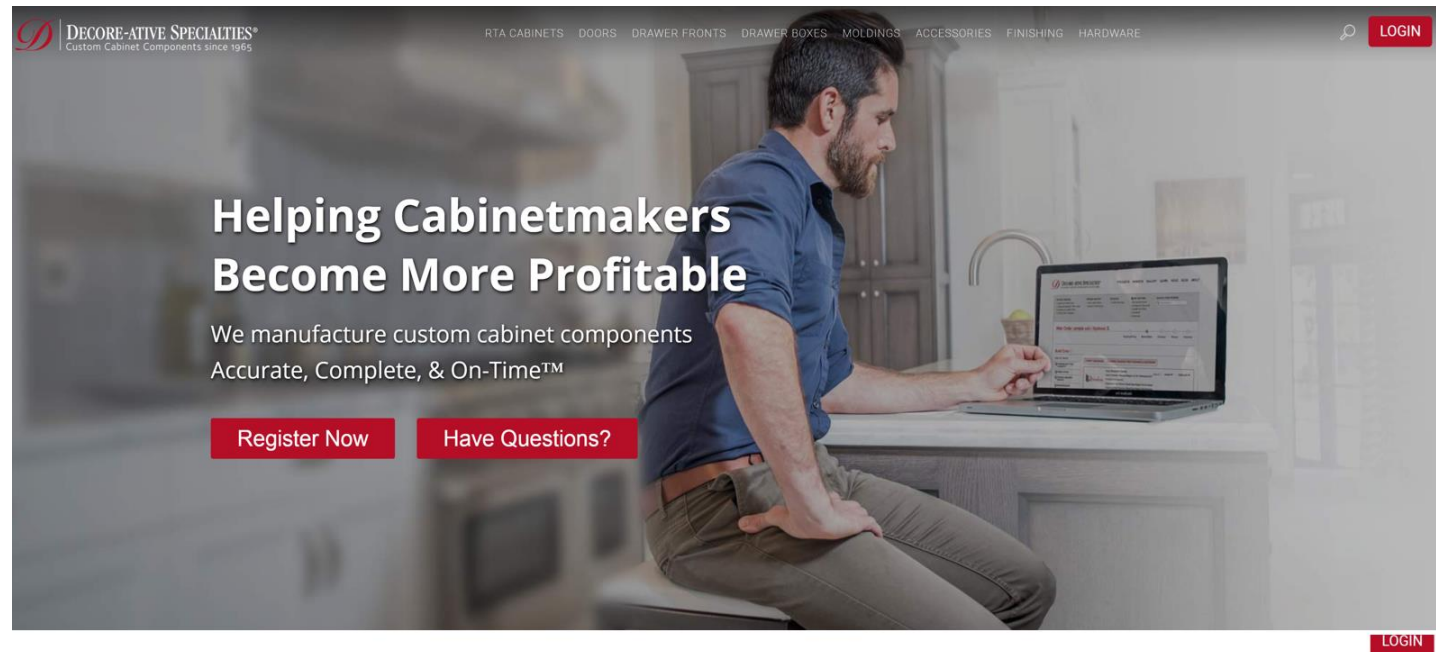
Career Influence

- Jack Lansford, Sr.
Chief Executive Officer
- Jack working in our
Monroe facility (1996)



Our Products

- RTA Cabinets
- Doors
- Drawer Fronts
- Drawer Boxes
- Moldings
- Accessories
- Finishing
- Hardware



Superior Quality

We provide the best possible quality in the industry.
We focus on custom details so you can become more productive.

[Free Catalog](#)



Reliable Lead Times

We understand the pressure of delivering on time.
We offer the fastest lead times so you can install and get paid.

[Free Download](#)



Professional Support

We offer designated personal contacts for your business needs.
We provide industry experts so you can reduce costs.

[Free Guide](#)

Wood Doors

■ CUSTOM DESIGN



4 Square Raised Panel 3/4" (800)
Ply, 6L, 0L
Maple Finish Grade, Clear Finish

EASY TO ORDER

Starting as the Reverse 3/4" (800) for "Western" customers or the Square Raised Panel 3/4" (100) for "Eastern" customers, simply select, customize, and order your desired profiles.

SELECT

Raised or Recessed Panel
Butt Joint or Mitered
Construction



Reverse 3/4" (800)
note: Select
Square Raised Panel 3/4" (100)
Ply, 6L, 0L



Ply, 6L, 0L

CUSTOMIZE

Panel Profiles (P)
Inside Edges (IE)
Outside Edges (OE)



Ply, 6L, 0L, 1" Frame
note: Select



Ply, 6L, 0L, 1" Frame
note: Select

ORDER

Anytime® Online
800.779.7277 Phone
800.338.0852 Fax



Ply, 6L, 0L, 1" Frame
note: Select



Ply, 6L, 0L, 1" Frame
note: Select

"Select" name and number in red

5

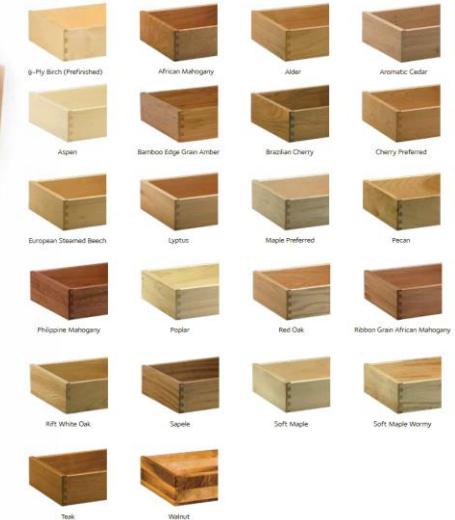
■ DRAWER BOXES



78

Overlaid (top) in Cherry, Maple, C.
Overlaid (top) in Maple, Walnut, Teak, and Birch
Underlaid (bottom) in Cherry, Maple, C.

DOVETAIL MATERIALS



9-Ply Birch (Prefinished)

African Mahogany

Alder

Aromatic Cedar

Alpen

Bamboo Edge Grain Amber

Brazilian Cherry

Cherry Preferred

European Steamed Beech

Lupinus

Maple Preferred

Pecan

Philippine Mahogany

Poplar

Red Oak

Ribbon Grain African Mahogany

Rift White Oak

Sapele

Soft Maple

Soft Maple Wormy

Teak

Walnut

Custom materials and
different combinations available

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Our Mission

Our Mission

We Manufacture...

Custom Cabinet Components

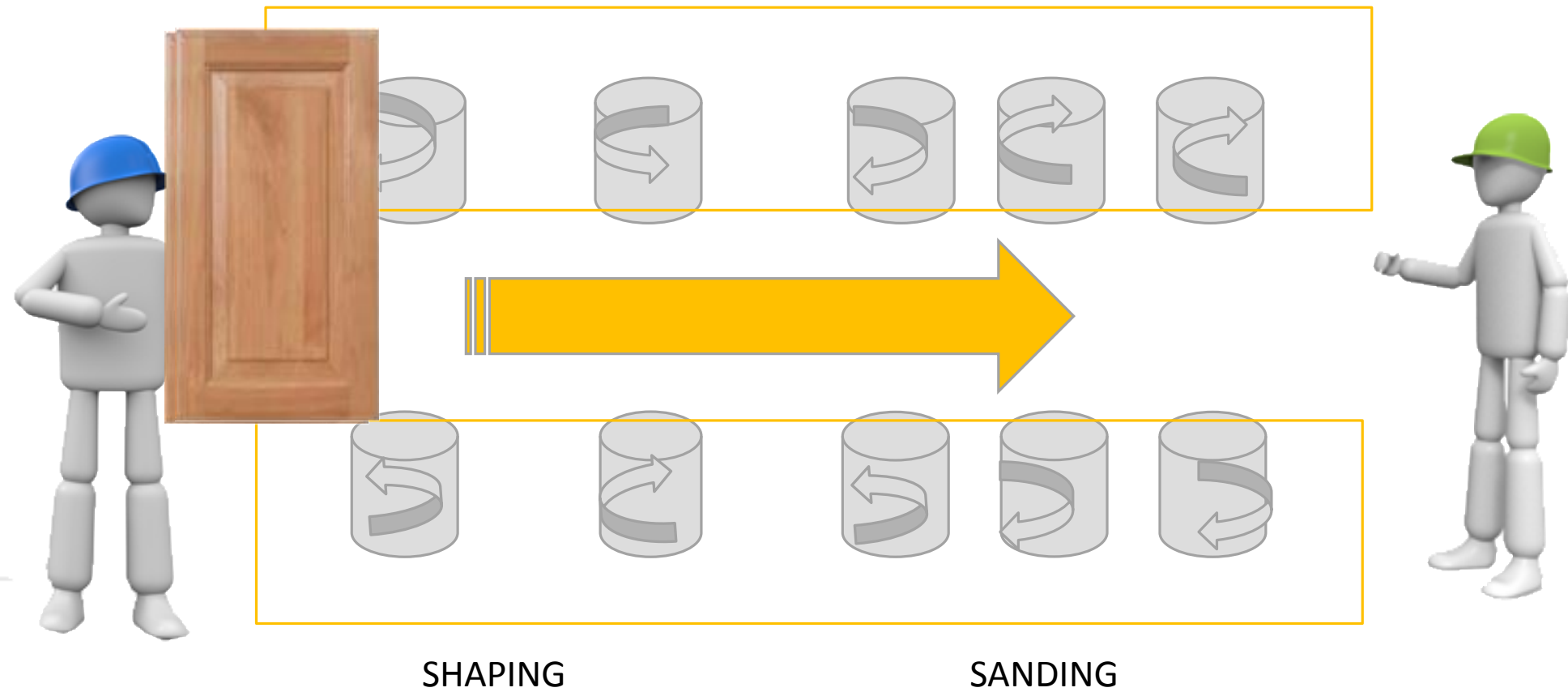
Accurate,
Complete,
& On-Time

CNC Double-End Tenoner

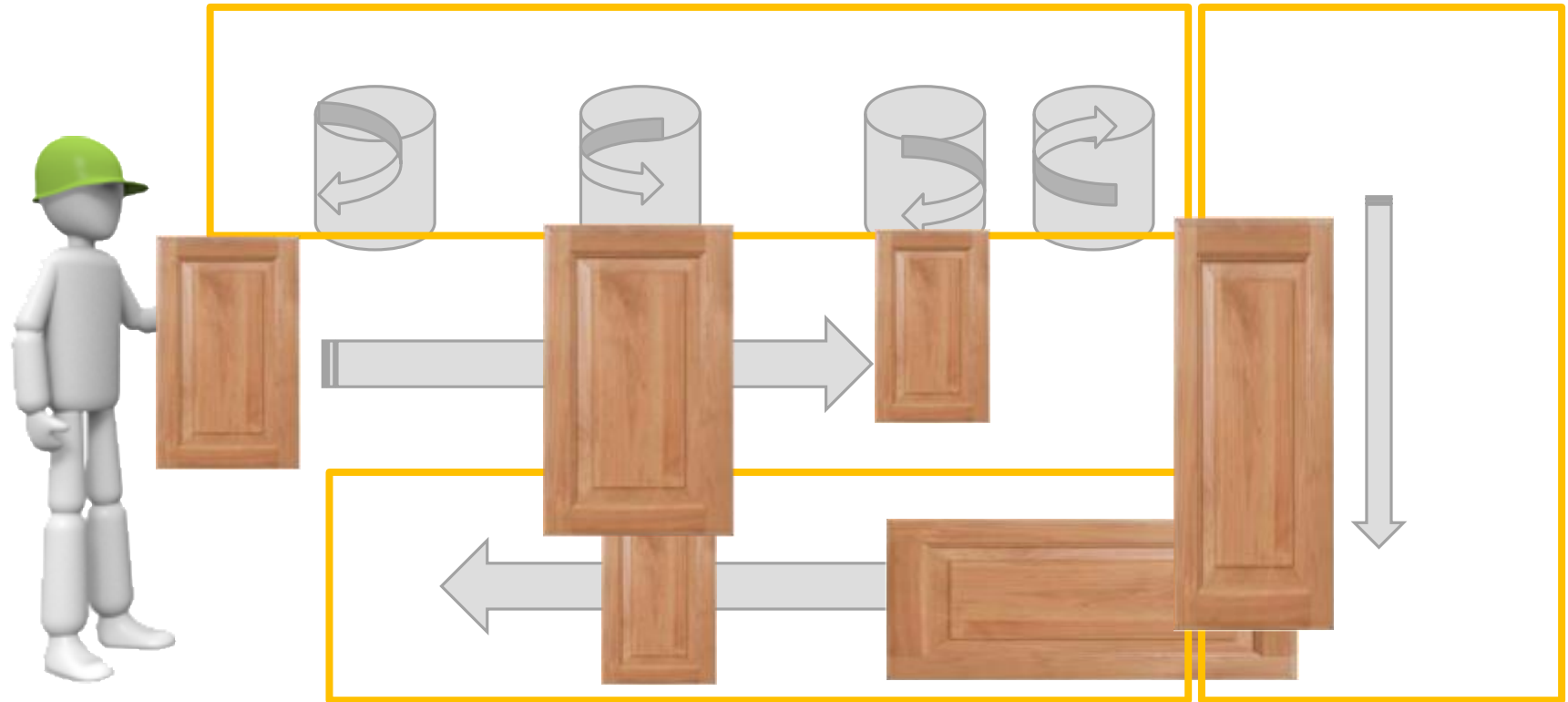
- Outside Edge Shaping
- Sanding
- Sizing
- Machine Options



CNC Double-end Tenoner



CNC Single-end Tenoner



Non-CNC Machines

- Outside Edge Shaping
- Sanding
- Sizing
- Machine Options



Continuous Improvement

- There has to be a better way...
- We need innovation!



Biesse Pod and Rail Machine

- First Test 2011
- Could a stile and rail door be cut with one tool (on a CNC router) without chipping?
- Yes!



2014 Bay Interior Woods Machine



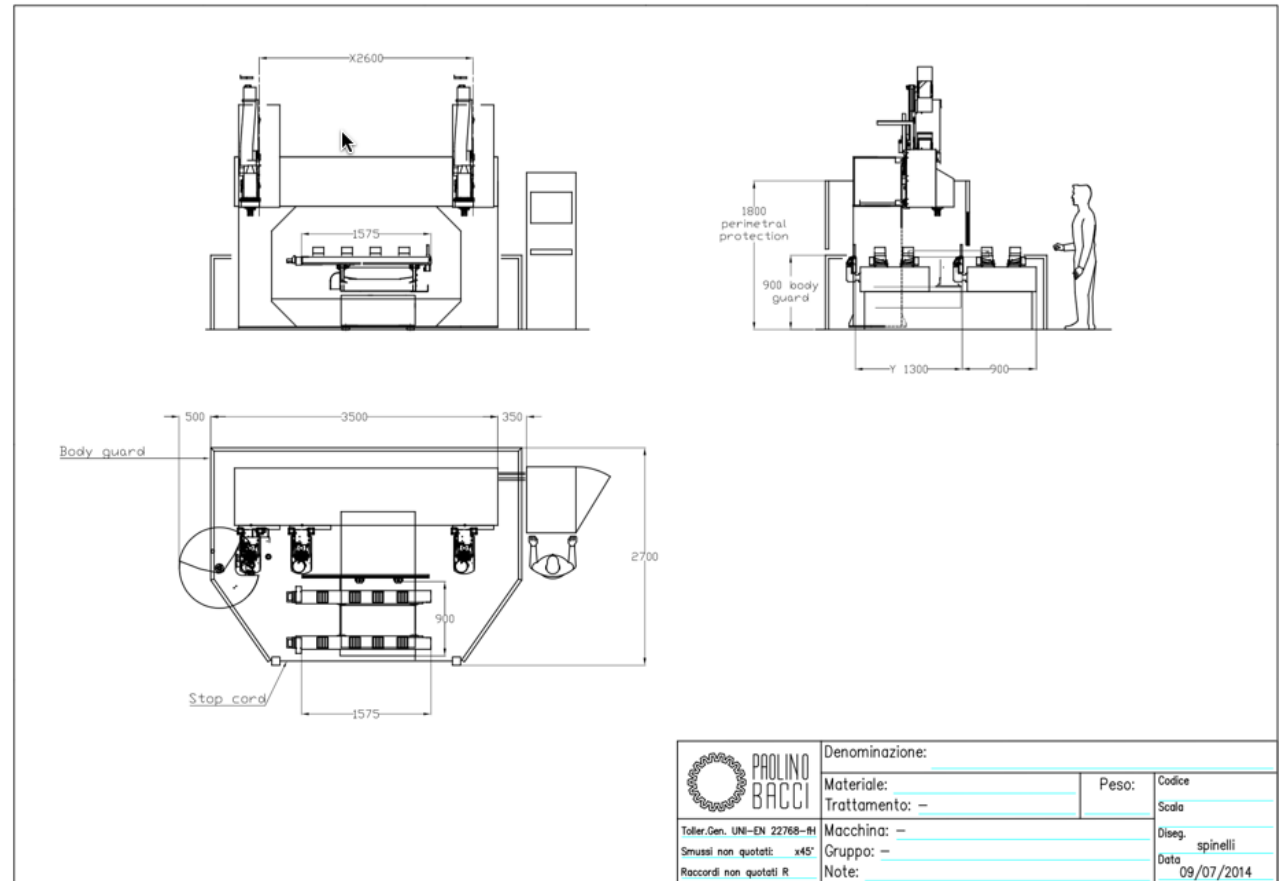
- There has to be a better way...
- We need innovation!





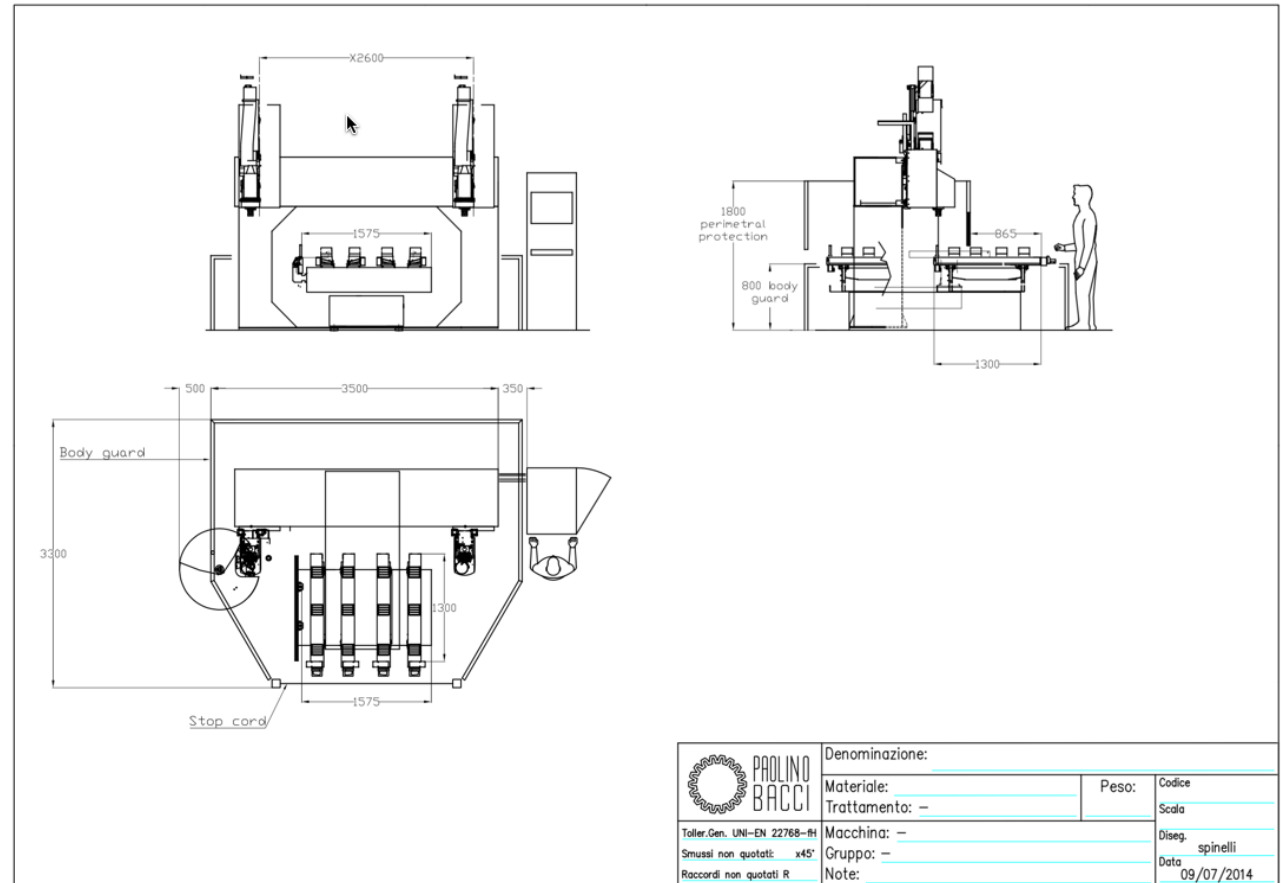
Design 1

- One Shaping Head
- Tool Changer
- Two Rails



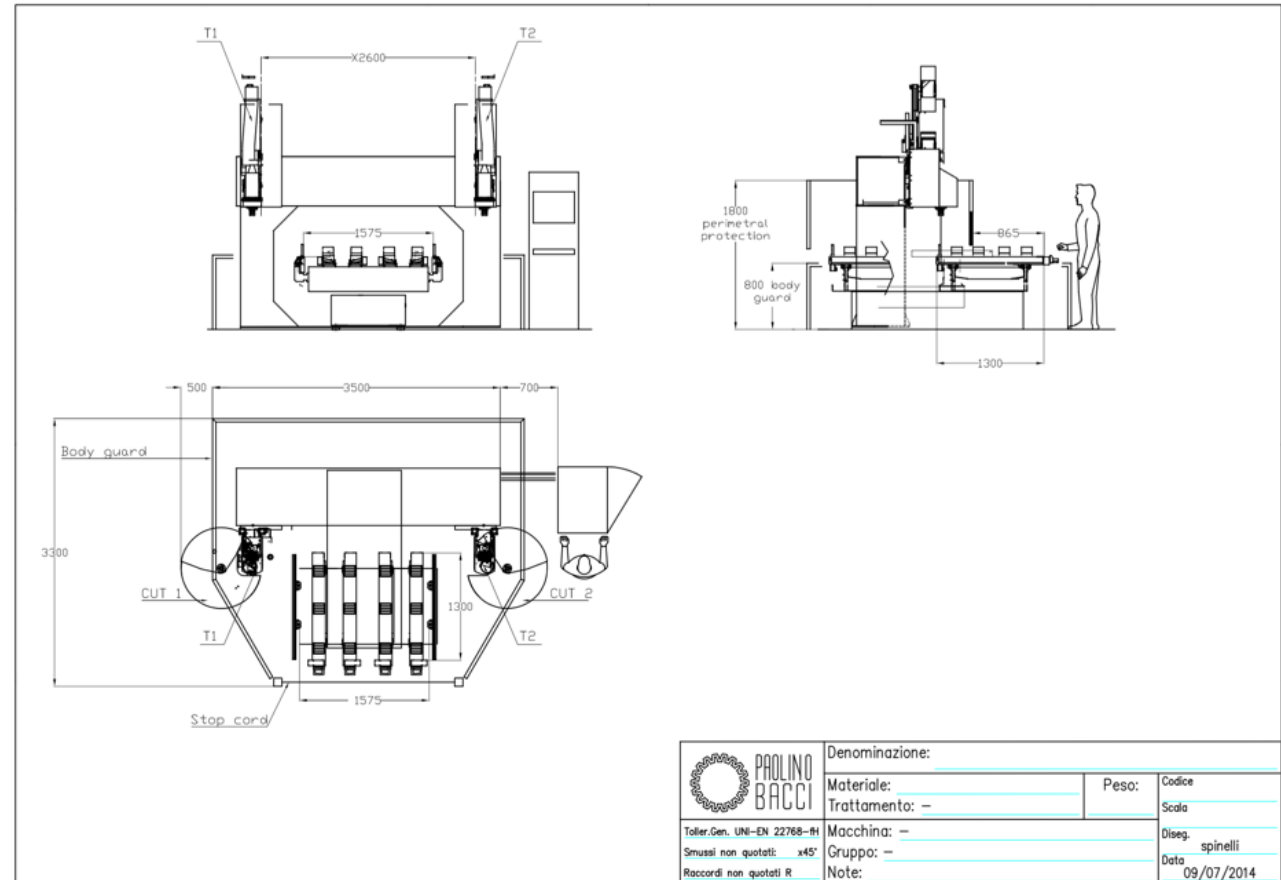
Design 2

- 1 Shaping Head
- 1 Tool Changer
- 4 Rails



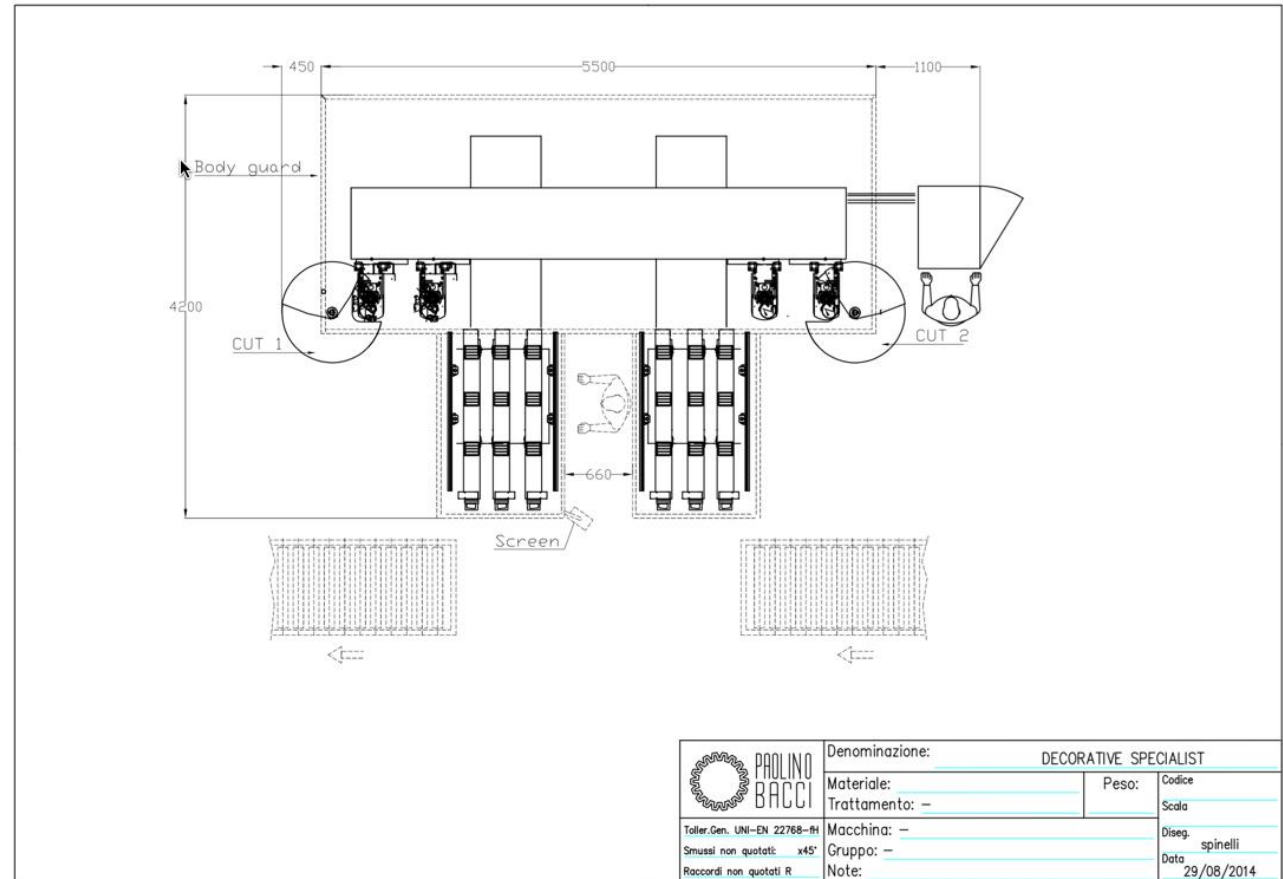
Design 3

- 2 Shaping Heads
- 2 Tool Changers
- 4 Rails



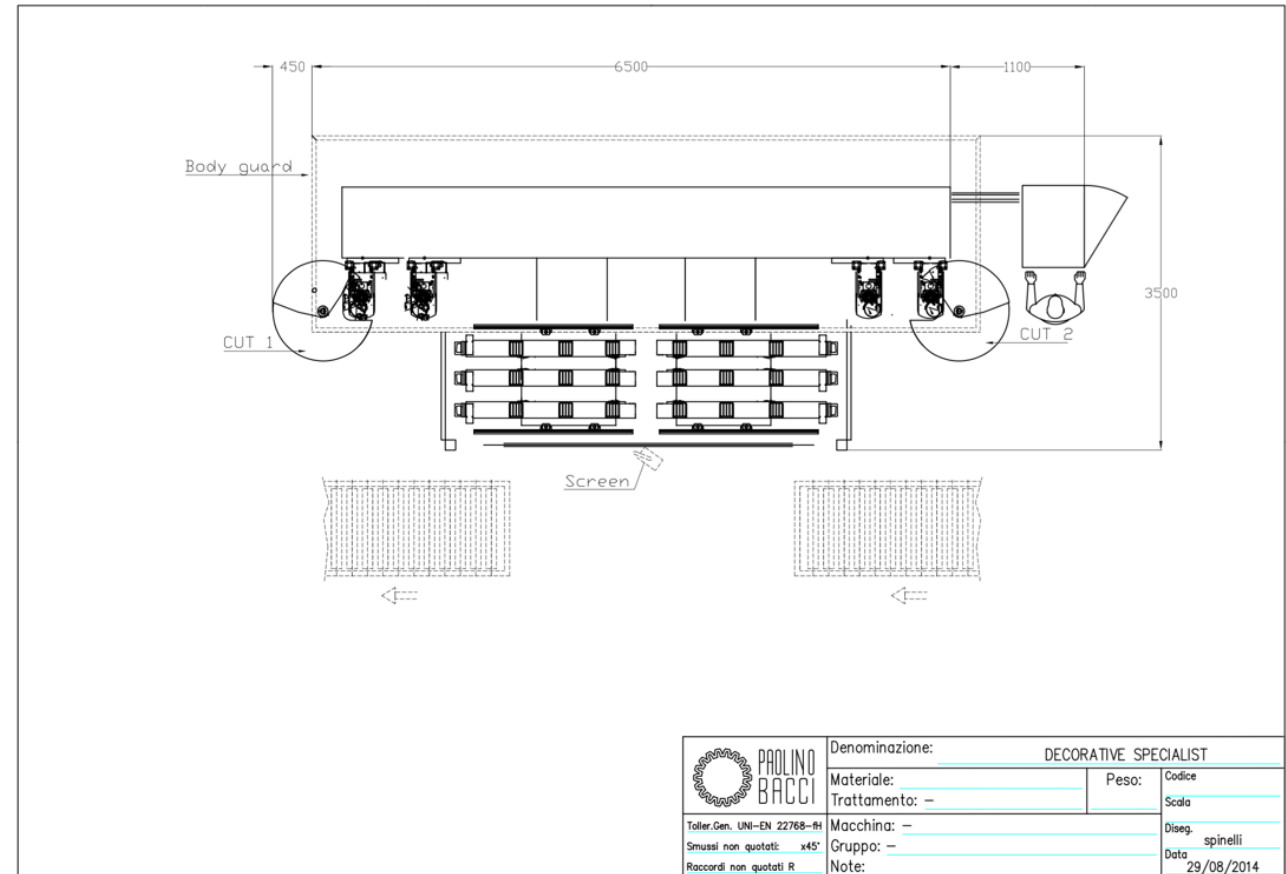
Design 4

- 2 Shaping Heads
- 2 Tool Changers
- 2 Tables



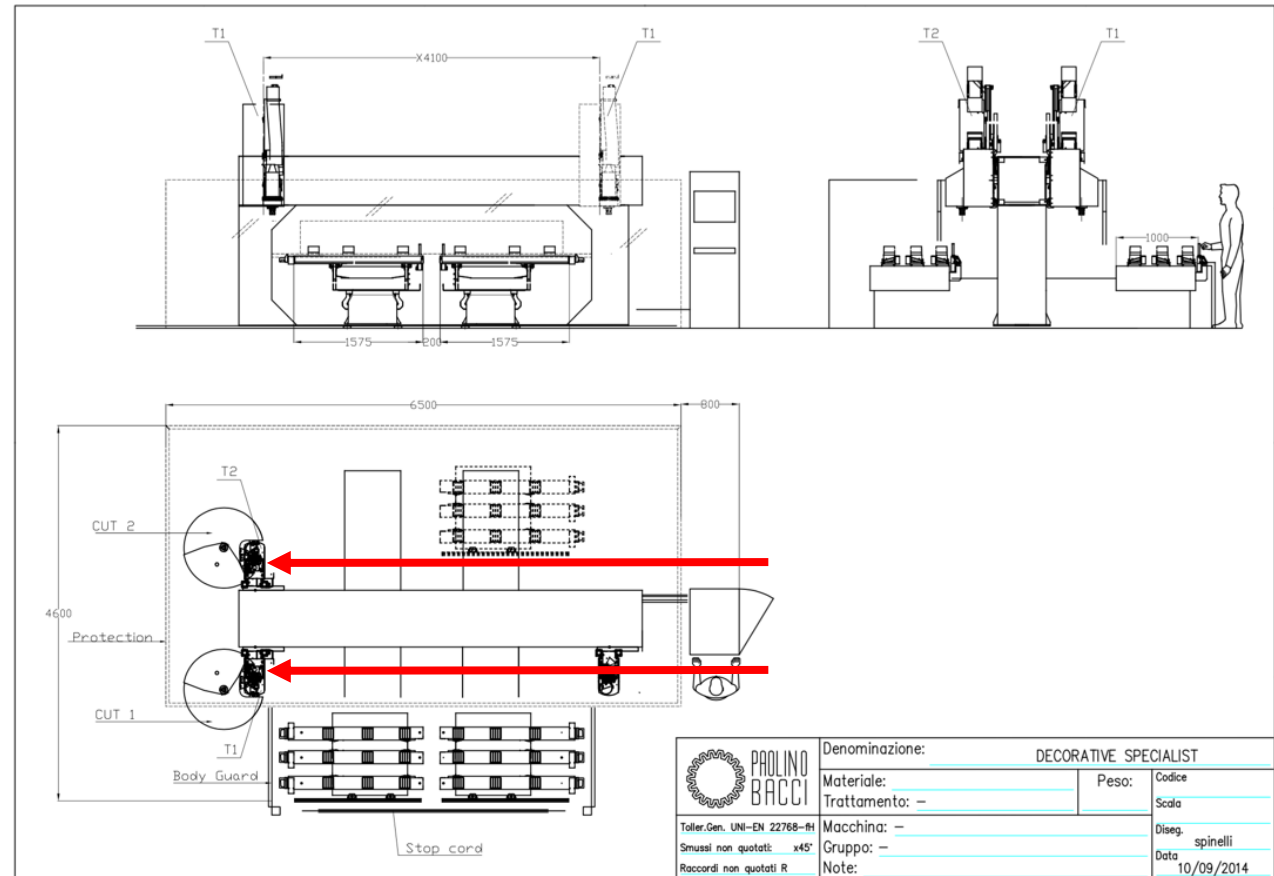
Design 5

- 2 Shaping Heads
- 2 Tool Changers
- 2 Tables



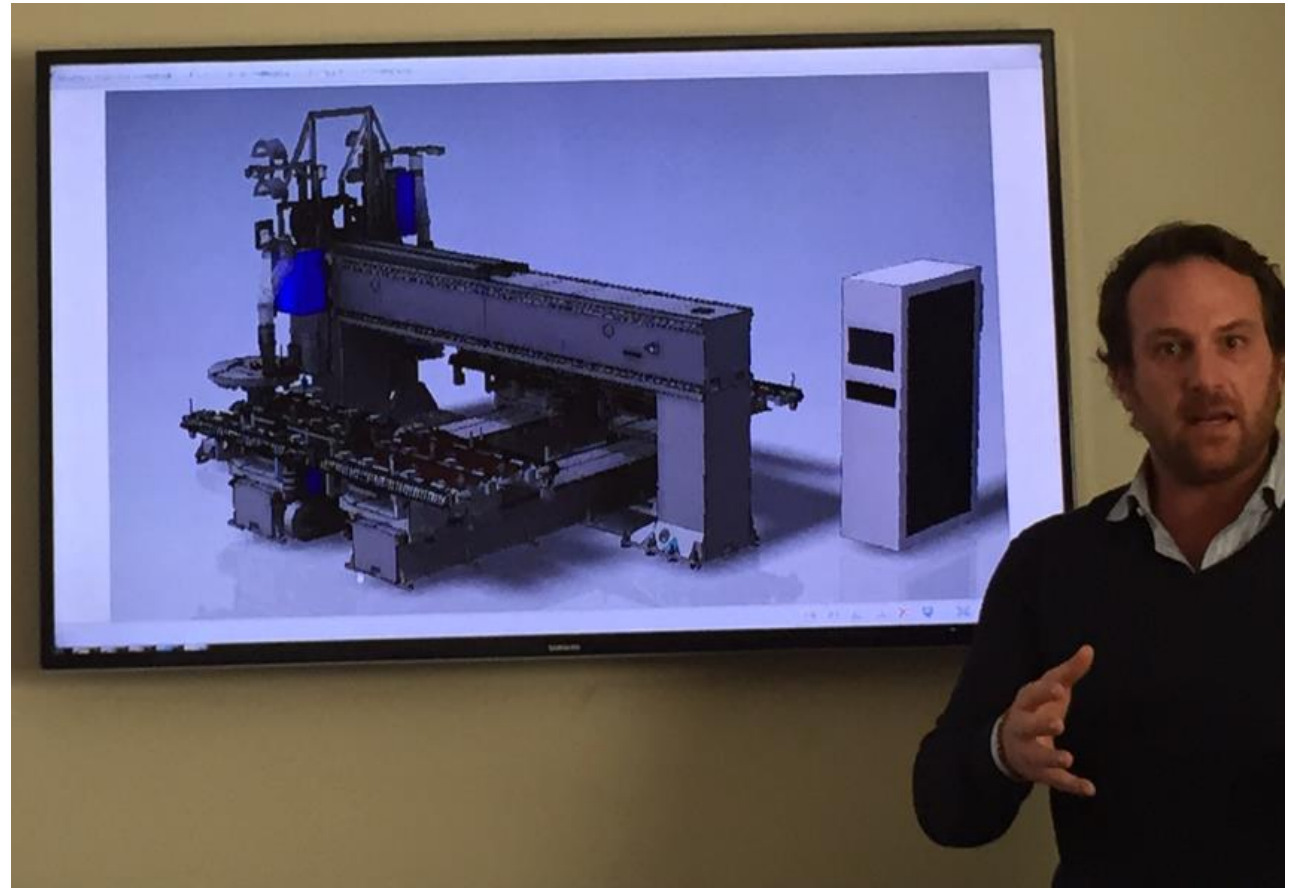
Design 6 – October 2014

- Breakthrough!
- Second Head Mounted to Back of Beam.

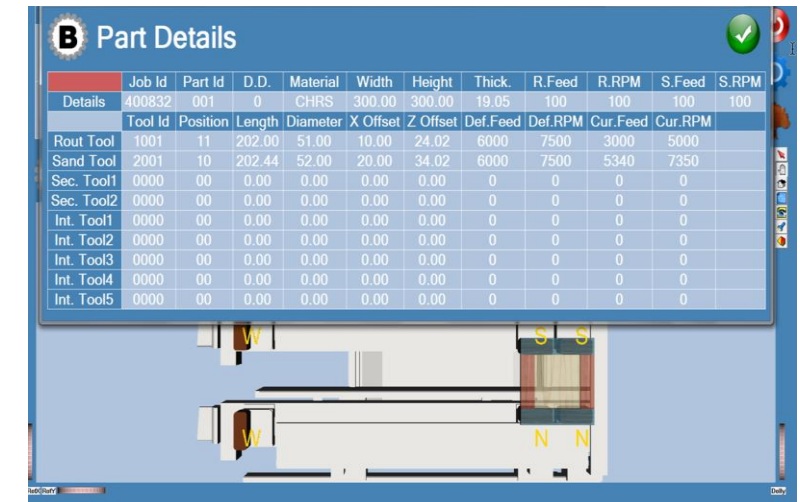
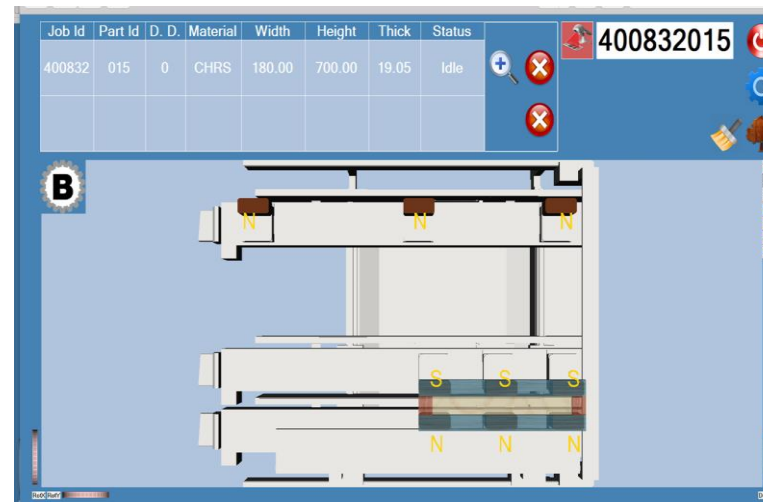
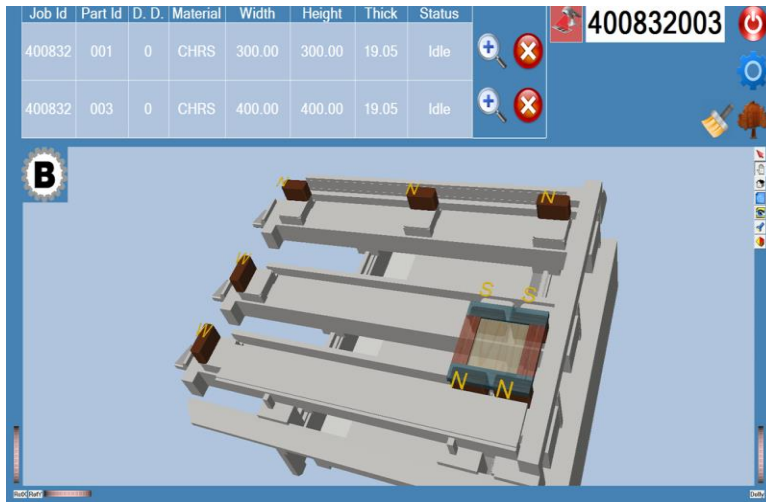


Design 6 – December 2014

- Merry Christmas!



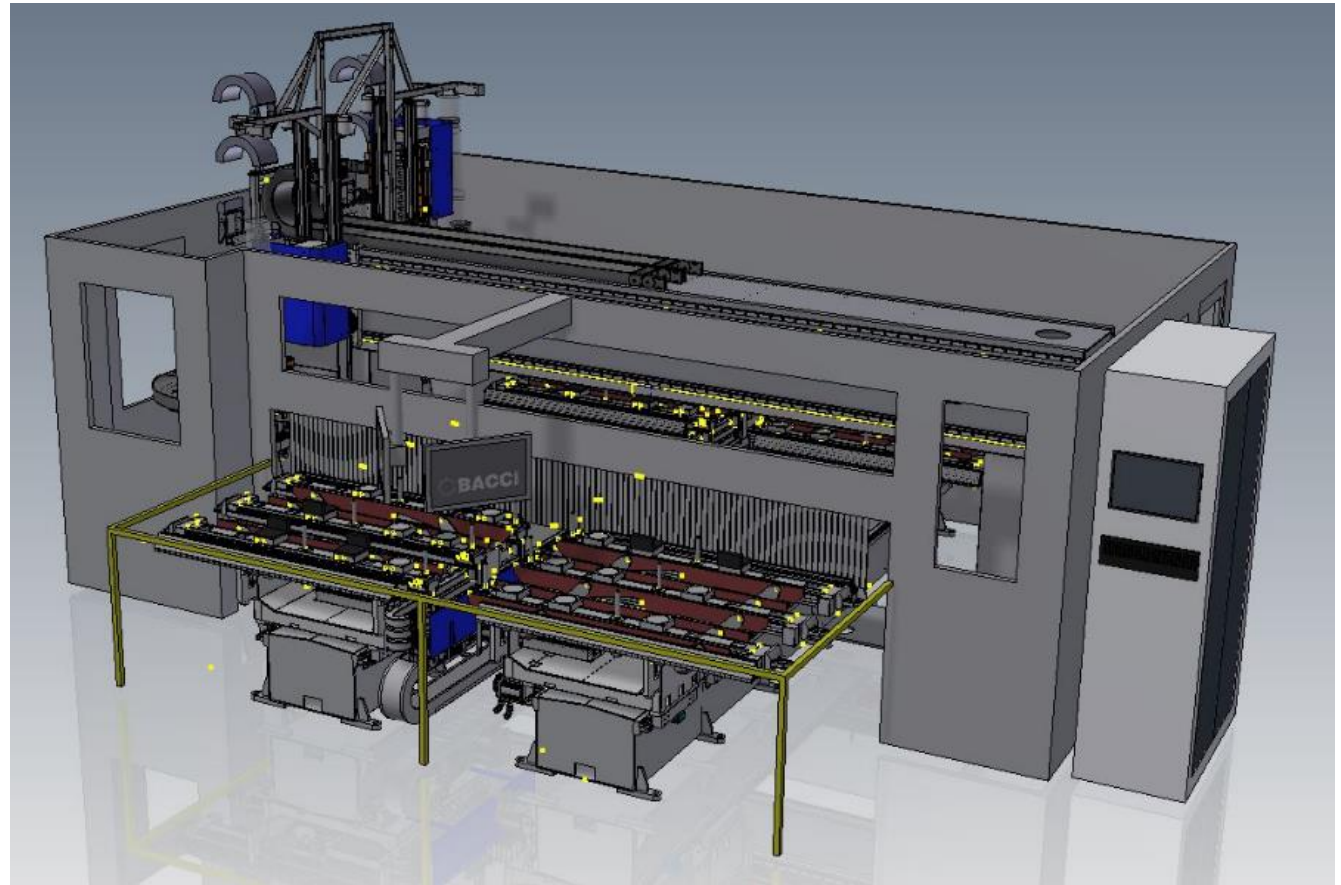
Customized Software



3P Planning

- Production
- Preparation
- Process

“Proper planning & preparation prevents pathetically poor performance”



3P Event

- Production
- Preparation
- Process

“Proper planning & preparation prevents pathetically poor performance”



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3P Event

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3P Event Summary

- Event Presentation
- Feedback documented and shared with Bacci

Bacci 3P event



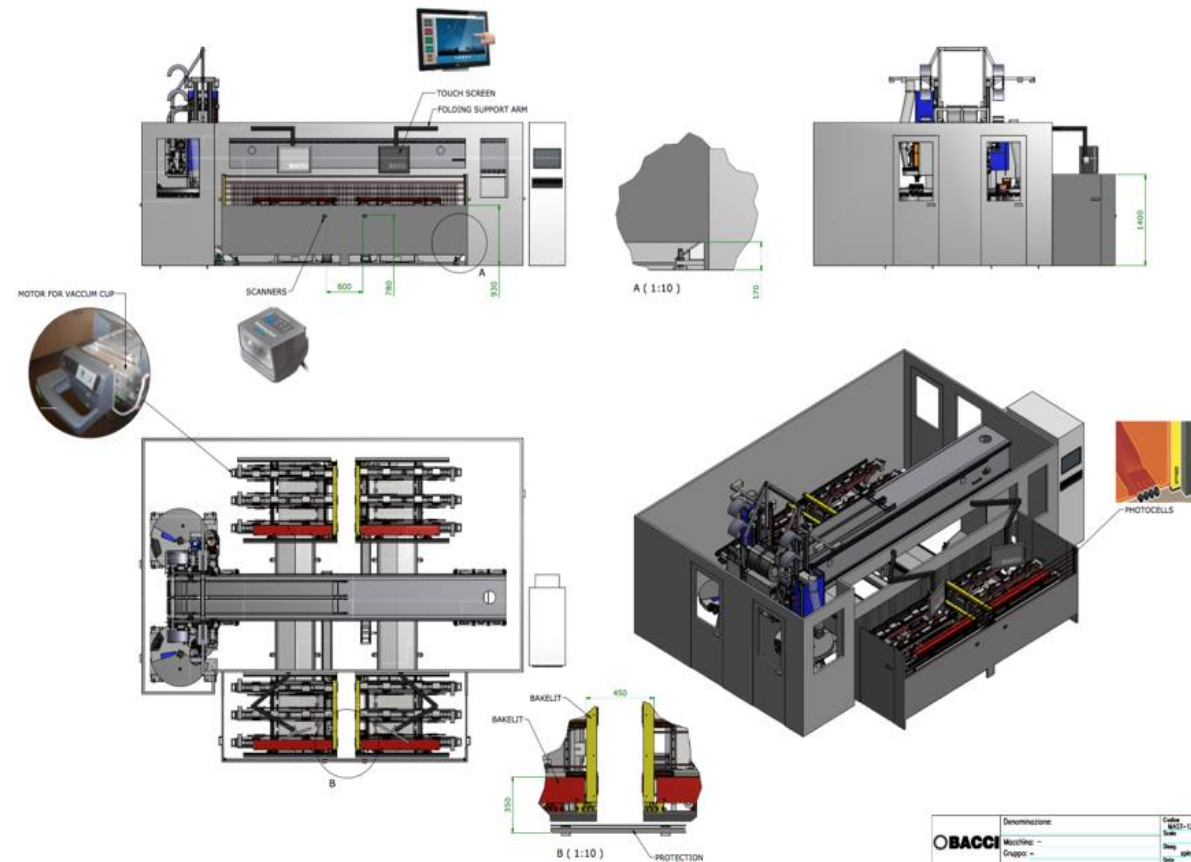
From event

1. Station start – scan door and allow table to position before loading.
2. While first door is processing, scan the next door and place in queue (this allows time for pods to adjust and eliminates confusion for next run).
3. The 2 barcode scanners locate near center and mounted to minimize scanning errors.



3P Event Design Changes

- Bacci received feedback and made design changes



Bacci One Testing – Pisa, Italy

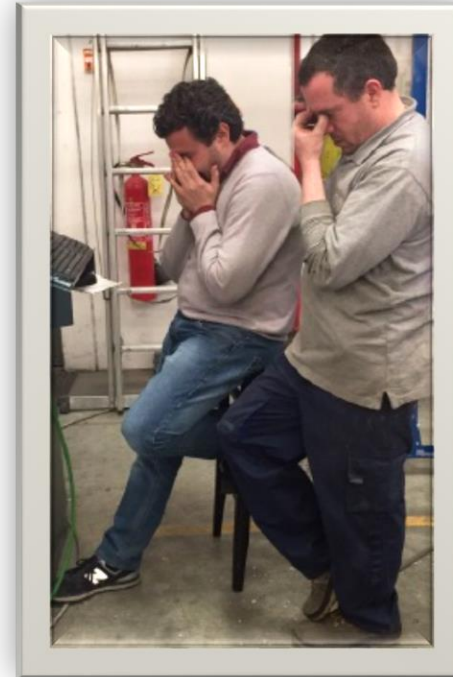


Bacci One Testing – Pisa, Italy

- Bacci One Runoff
- After “tasting” the fruits, we started to see the fruits... of our labor!



Bacci Technicians & Support



Automation By Innovation

- Bacci One
- Video of Operations



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Questions??

Joint Technology Development

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